

## The name *Leptorhynchos linearis* and the type of *Leptorhynchos* (Asteraceae)

The generic name *Leptorhynchos* Less. (Asteraceae) was based on two species names, *L. squamatus* (Labill.) Less. and *L. linearis* Less. These two names as currently circumscribed have been applied to species that are sufficiently different as to question their being congeneric. Since both names have, at different times, been proposed as type of the genus their correct application is of particular importance.

### History

When Christian Lessing (1832) described the genus *Leptorhynchos* he included two taxa, *L. squamatus* and *L. linearis*. The former name was based on *Chrysocoma squamata* Labill. (Labillardière 1805) [incorrectly cited as *Conyza squamata*], a species found by Labillardière on the south coast of Tasmania; there is no doubt about the application of this name since it was adequately described and illustrated and an isotype is present in Australia (MEL 1543432). The latter name was based on a specimen present in the herbarium of C.S. Kunth that had been collected by C. Gaudichaud-Beaupré at Port Jackson, Sydney, New South Wales. Lessing's description of *L. linearis* was very brief and due to a typographical error indicated that the leaves were only 1½" [lines] long (c. 3 mm) an error repeated by de Candolle (1838) while it was evidently intended to state that they were 1½" [inches] long (c. 36 mm).

Kunth died in 1850 and his herbarium passed to the state herbarium in Berlin (Stafleu & Cowan 1979). Here the type of *L. linearis* was seen by O.W. Sonder who considered that it was conspecific with *L. squamatus* and who published the new combination *L. squamatus* var. *linearis* (Less.) Sond. (Sonder 1853: 500). He stated that he had seen the specimen of *L. linearis* in the Berlin herbarium that had been earlier examined by Lessing ("Compar. spec. Lessingian. in herb. Berol.").

George Bentham (1867), in writing up the genus *Leptorhynchos* for the "Flora Australiensis", overlooked Sonder's comment and synonymy and applied the name *L. linearis* in the sense of *L. nitidulus* DC. (de Candolle 1838) while the latter name he incorrectly placed in synonymy under *L. squamatus*.

Ferdinand Mueller evidently had doubts about Bentham's treatment of these species for he appears to have written to Prof. A.W. Eichler in Berlin requesting information on the type of *L. linearis*. Eichler passed the request to Paul Ascherson who was professor of botany in the University of Berlin. A copy of Ascherson's reply to Mueller (dated 3 May 1880) is attached to a sheet of *L. squamatus* in the National Herbarium, Melbourne (sheet MEL 248910). The essence of Ascherson's letter is that the only specimen of *L. linearis* in the Berlin herbarium is that of the type of the name and that it was identical to a specimen of *L. squamatus* collected by Ferdinand Mueller at Port Phillip in 1876. Ascherson returned to Mueller a portion of this Port Phillip collection and also sent several achenes that were extracted from the type of *L. linearis* in Berlin. These achenes are in a packet labelled "Achänen von Originalexpl. [Exemplar] von *L. linearis* Less." which is also mounted on sheet MEL 248910; they have the same morphology as those found in the type of *L. squamatus* and are different from those found in *L. nitidulus*, in particular in the size, shape, and density of the teeth towards the base of the pappus bristles (see Figure 1). Since the Berlin Herbarium was largely destroyed in the war of 1939–1945, the loose achenes on sheet MEL 248910 are presumably all that remain of the type of *L. linearis*.

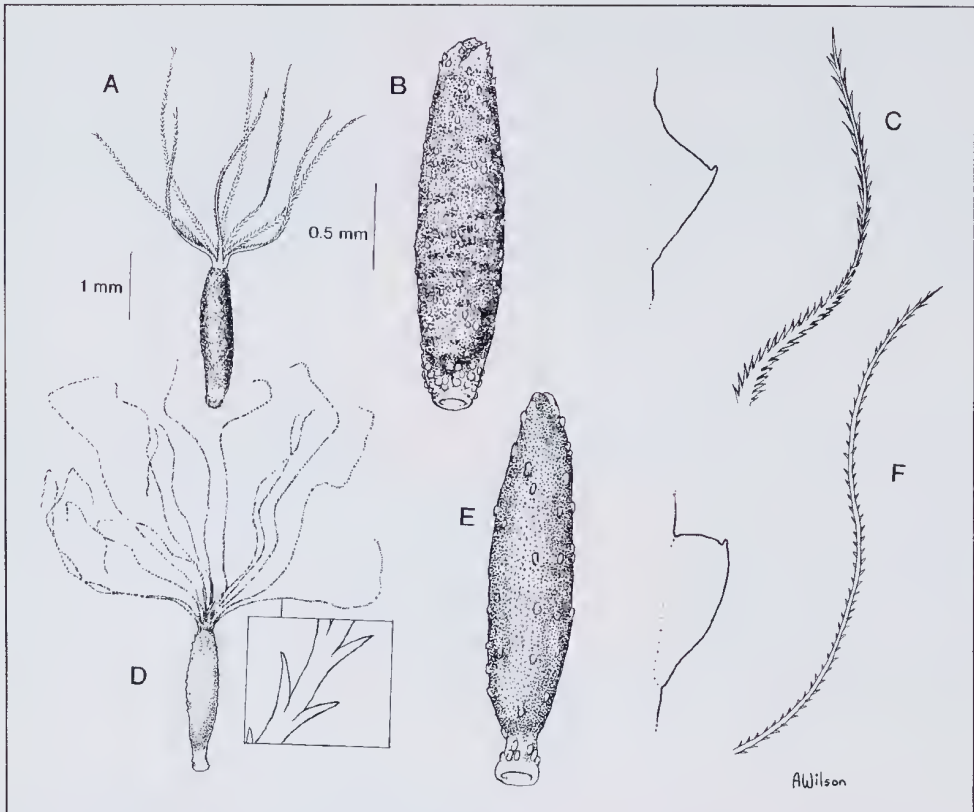


Figure 1. A-C. *Leptorhynchos squamatus*. A - achene with pappus. B - achene with enlargement of papilla. C - pappus bristle. D-F. *Leptorhynchos nitidulus*. D - achene with pappus. E - achene with enlargement of papilla. F - pappus bristle. A-C from *E. Gauba* (CANB 015420); D-F from *R. Melville* 2854 (MEL).

This information, and his own recognition of the correct application of the name *L. nitidulus*, evidently led Mueller to adopt the name *L. nitidulus* in place of *L. linearis* in his "Systematic Census of Australian Plants" (1882), but without an explanation. This name change was accepted by Moore (1893), Rodway (1903), and Maiden & Betche (1916), all of whom assumed that both *L. linearis* and *L. nitidulus* applied to the same species and that the latter should be used (even though the former was the first to be published), although none of these authors indicated the reasons for their actions. This lack of documentation presumably led Ewart (1931), Curtis (1963), and Willis (1973) to continue with the misapplication of the name *L. linearis*, while Jacobs & Pickard (1981) and Everett (1992) followed Maiden & Betche in using the name *L. nitidulus*, but again without an explanation.

*Leptorhynchos squamatus* is widespread and somewhat variable. The taxonomy of this variation is currently being investigated by Christina Flann (MEL) and until this study has been completed a formal recognition of infraspecific taxa would be premature.

#### Lectotypification of *Leptorhynchos*

Since it is now established that the names *Leptorhynchos squamatus* and *L. linearis* apply to the same species, lectotypification of the genus is not of such importance. However, the suggestion by Farr *et al.* (1979) that Pfeiffer (1874) may have lectotypified it on *L. squamatus* can possibly not be

substantiated since all Pfeiffer did was to list the one species [as '*Conyza squamata*'] under the generic name. The first undoubted lectotypification appears to have been made by Anderberg (1991) who chose *L. linearis* [= *L. squamatus*] as the type and it is this lectotypification that I am following, as did Greuter *et al.* (1993).

### Acknowledgement

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